

REMARKS**Withdrawal of Restriction Requirement**

Applicants wish to thank the Examiner for acknowledging that the Restriction Requirement dated August 10, 2005 was both improper and unnecessary by withdrawing the Requirement. Applicants respectfully reserve the right to petition the Commissioner for a Patent Term Adjustment to recover the lost patent pendency term as a result of the Requirement that Applicants proved to have been unnecessary. Specifically, at least the time period from August 10, 2005 (date of the Requirement) to November 15, 2005 (date of the Final Office Action).

All Claims Define Allowable Subject Matter

Claims 13-16, 20, 21, 34-37, 41-44, and 48-58 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujikawa et al. (US 5,995,177) in view of Hebiguchi (US 6,091,473), Kaneko et al. (US 6,587,162), and Fujiwara et al. (US 5,835,170). Applicants respectfully traverse this rejection for the following reasons.

The Final Office Action acknowledges the numerous deficiencies of Fujikawa et al. including:

Fujikawa does not appear to explicitly specify that the storage capacitance common line has a protrusion and a first capacitor electrode overlaps a portion of the common line and protrusion of the common line to form a first storage capacitor, the first capacitor electrode connected to the thin film transistor.

Final Office Action at page 4.

Fujikawa does not appear to explicitly specify a black matrix on the second transparent substrate, the black matrix covering the thin film transistor, the protrusion of the common line, and portions of the gate line and the common line and a common electrode on the second transparent substrate to cover the black matrix.

Final Office Action at page 5.

Fujikawa does not appear to explicitly specify that the gate line includes a gate electrode extending from the gate line by a predetermined length along a second direction perpendicular to the first direction and the common line protrusion extending toward the gate line along the second direction spaced apart from the gate line by a predetermined distance and wherein the predetermined length of the gate electrode is greater than the predetermined distance between the protrusion and the gate line.

Final Office Action at page 6.

Accordingly, the Final Office Action relies upon each of Hebiguchi, Kaneko et al., and Fujiwara to remedy the individual deficiencies of Fujikawa, as detailed and acknowledged above. Thus, the Final Office Action concludes that it would have been obvious to one of ordinary skill in the art of liquid crystals to modify Fujikawa for various reasons to arrive at Applicants' claimed invention. Applicants respectfully traverse these rejections for at least the following reasons.

With regard to Hebiguchi, the Office Action relies upon Hebiguchi to allegedly teach common electrodes extending from a common electrode wiring line and a capacity structure "so that capacity is secured and capacity generated by the capacity generating electrodes functions as the removal of the effect of parasitic capacity when liquid crystal is driven and storage capacity for holding signal voltage (Column 6, Lines 30-49)." In addition, the Final Office Action alleges that "Hebiguchi is evidence that ordinary workers in the field of liquid crystals would have had the reason, suggestion, and motivation to overlap a capacity generating electrode with a common electrode protruding from a common electrode wiring line and connecting the capacity generating electrode and drain for securing capacity and for removal of the effect of parasitic capacity when liquid crystal is driven and storage capacity for holding signal voltage." Thus, the Final Office Action concludes that "it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Fujikawa in view of Hebiguchi

for an array substrate in which capacity is secured, the effects of parasitic capacity are removed, and for storage capacity for holding signal voltage.” Applicants respectfully traverse this portion of the rejection for at least the following reasons.

First, Applicants respectfully assert that Fujikawa et al. is directed toward an active matrix substrate of an LCD device having pixel and common electrodes disposed on opposing substrates, i.e., a twisted neumatic (TN) LCD device; whereas Hebiguchi et al. is directed toward an active matrix substrate of an LCD device having pixel and common electrodes disposed on a single substrate, i.e., a in-plane switching (IPS) LCD device. Accordingly, Applicants respectfully assert that Fujikawa et al. and Hebiguchi et al. are directed to completely non-analogous technologies, and as such, one of ordinary skill in the art would not look to structures of an IPS LCD device to modify the structure of a TN LCD device. Thus, Applicants respectfully assert that the Final Office Action has not established any proper motivation to modify the TN LCD device of Fujikawa et al. with the IPS LCD device of Hebiguchi et al., and thus, has further not established a *prima facie* case of obviousness.

Second, Applicants respectfully assert that modifying the TN LCD device of Fujikawa et al. with the teachings of an IPS LCD device of Hebiguchi et al. would render the TN LCD device of Fujikawa et al. unsatisfactory for its intended purpose. Specifically, Applicants respectfully assert that following the teachings of Hebiguchi et al., with regard to relative disposition of common line and alleged protrusions extending from the common line of the IPS LCD device, would cause significant detrimental capacitive influences upon the pixel electrode of the TN LCD device of Fujikawa et al., i.e., parasitic capacitance coupling. Accordingly, modifying the TN LCD device of Fujikawa et al. to form a common line and protrusions extending from the common line would induce detrimental capacitive influences upon the pixel electrode of

Fujikawa et al., which would render the TN LCD device of Fujikawa et al. inoperable and unsatisfactory for its intended purpose. Thus, Applicants respectfully assert that the Final Office Action has not established any proper motivation to modify the TN LCD device of Fujikawa et al., and thus, has further not established a *prima facie* case of obviousness.

Third, Applicants respectfully assert that Hebiguchi et al. fails to provide any proper motivation with which to modify Fujikawa et al. For example, the Final Office Action alleges that “Hebiguchi has this structure so that capacity is secured and capacity generated by the capacity generating electrodes functions as the removal of the effect of parasitic capacity when liquid crystal is driven and storage capacity for holding signal voltage (Column 6, Lines 30-49).” However, Applicants respectfully assert that the IPS LCD structures disclosed by Hebiguchi et al. are wholly incompatible with the TN LCD structure disclosed by Fujikawa et al. Specifically, incorporating the capacity generating electrode 65 of Hebiguchi et al. would cause undesirable parasitic capacitive coupling with the pixel electrode of Fujikawa et al., thereby resulting in an inoperable TN LCD device. Accordingly, because modifying the TN LCD device of Fujikawa et al. to form a capacity generating electrode would induce detrimental capacitive influences upon the pixel electrode of Fujikawa et al., which would render the TN LCD device of Fujikawa et al. inoperable and unsatisfactory for its intended purpose, Applicants respectfully assert that the Final Office Action has not established any proper motivation to modify the TN LCD device of Fujikawa et al., and thus, has further not established a *prima facie* case of obviousness.

Thus, for at least the above reasons Applicants respectfully assert that the Final Office Action has failed to establish a *prima facie* case of obviousness with regard to Applicants’ claimed invention.

With regard to Kaneko et al., the Office Action relies upon Kaneko et al. for allegedly teaching and disclosing “a liquid crystal display wherein a black matrix is formed on an opposing substrate and shields portions of a gate line and drain line and furthermore shields a common line (Column 3, Lines 60-65 and Column 4, Lines 9-12).” In addition, the Final Office Action relies upon Kaneko et al. for allegedly teaching “that typically a black matrix is formed on an upper color filter substrate and has a common electrode layer over a black matrix (Column 1, Lines 46-49).” Accordingly, the Final Office Action concludes that these alleged teachings and disclosures by Kaneko et al. of “a configuration of the black matrix with respect to the gate line and common line contributes to improved yield by preventing disconnection from occurring in a layered line portion or lead terminal portion of an active matrix liquid crystal display device (Column 1, Lines 5-12).” Furthermore, the Final Office Action alleges that “Kaneko is evidence that ordinary workers in the field of liquid crystals would have found the reason, suggestion and motivation to specify a black matrix on the second transparent substrate, the black matrix covering the thin film transistor, the protrusion of the common line, and portions of the gate line and the common line and a common electrode on the second transparent substrate to cover the black matrix for improving yield by preventing disconnection from occurring in a layered line portion or lead terminal portion of an active matrix liquid crystal display device (Column 1, Lines 5-12).” Thus, the Final Office Action concludes that “[it] would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Fujikawa in view of Kaneko for improved yield by preventing disconnection from occurring in a layered line portion or lead terminal portion of an active matrix liquid crystal display device (Column 1, Lines 5-12).” Applicants respectfully traverse this portion of the rejection for at least the following reasons.

First, Applicants respectfully assert that the allegation that Kaneko et al. teaches and discloses both a black matrix that shields portions of gate and drain lines and, simultaneously, a common line at “Column 3, Lines 60-65 and Column 4, Lines 9-12” is completely taken out of context with regard to the complete disclosure of Kaneko et al. Specifically, Kaneko et al. discloses, under the heading “Summary of the Invention,” an apparent second embodiment, wherein:

(2) A liquid crystal display comprising, a pair of substrates, a liquid crystal layer interposed between said pair of substrates, a gate line formed on one of said pair of substrate, a first insulating layer formed over said gate line, a drain line formed on said first insulating layer, a second insulating layer formed over said drain line, a pair of electrodes disposed between said liquid crystal layer and one of said pair of substrates, **wherein a black matrix formed on another of said pair of substrates and shielding said gate line and said drain line**, and a portion of said drain line is intersected with said gate line, and an electrically conductive layer is formed on said second insulating layer and covering at least said portion (emphasis added).

In addition, Kaneko et al. discloses, under the heading “Summary of the Invention,” an apparent third embodiment, wherein:

(3) A liquid crystal display comprising, a pair of substrates, a liquid crystal layer interposed between said pair of substrates, a gate line formed on one of said pair of substrate, a common line formed on one of said pair of substrate, a first insulating layer formed on said common line, a drain line formed on said first insulating layer, a second insulating layer formed on said drain line, a pixel electrode formed on said first insulating layer, a counter electrode formed on one of said pair of substrate, wherein a portion of said drain line is intersected with said common line, and **a black matrix formed on another of said pair of substrates and shielding said common line and said drain line**, and an electrically conductive layer is formed on said second insulating layer and covered at least said portion (emphasis added).

Accordingly, Applicants respectfully assert that the above disclosures of Kaneko et al. are separate and mutually distinct from each other. Thus, Applicants respectfully assert that Kaneko et al. fails to teach or suggest any single embodiment including “a liquid crystal display wherein a black matrix is formed on an opposing substrate and shields portions of a gate line and drain line and furthermore shields a common line,” as alleged by the Final Office Action. Moreover, Applicants respectfully assert that Kaneko et al. is completely silent with regard to any disclosure of an *aggregate teaching* of mixing various features of the different disclosed embodiments of Kaneko et al. Therefore, Applicants respectfully assert that the Final Office Action fails to establish a *prima facie* case of obviousness with regard to Applicant’s claimed invention.

Second, the Final Office Action’s allegation that Kaneko et al. allegedly teaches “[s]uch a configuration of the black matrix with respect to the gate line and common line contributes to improved yield by preventing disconnection from occurring in a layered line portion of lead terminal portion of an active matrix liquid crystal display device (Column 1, Lines 5-12)” is completely taken out of context with regard to the full disclosure of Kaneko et al. Specifically, Kaneko et al. discloses, under the heading “Background of the Invention” and under the sub-heading “Field of the Invention” at col. 1, lines 5-12, that:

The present invention relates to a liquid crystal display device and, more particularly, to a liquid crystal display device which is improved in yield factor by preventing disconnection from occurring in a layered line portion or a lead terminal portion in a liquid crystal display device of an active matrix type such as a thin-film transistor (TFT) type.

In addition, Kaneko et al. explicitly discloses, at col. 6, lines 26-31, that:

According to each of the constructions of the invention, it is possible to efficiently prevent disconnection or the like due to electrolytic corrosion or stress caused by the penetration of moisture toward the gate line, the drain line, the intersection of both lines in the pixel area or the conductor layer of a lead terminal.

Furthermore, Kaneko et al. explicitly discloses, at col. 6, lines 53-60, that:

In the invention, at the same time that pixel electrodes are formed, a capping layer (protective layer: also called a cap layer) made of a transparent conductive layer is formed over the portion of a passivation layer in which electrolytic corrosion easily occurs. If a pinhole is formed in a portion of the passivation layer, the pinhole is buried by a pattern of the transparent conductive layer formed in that portion, whereby the supply of moisture is intercepted.

Accordingly, Applicants respectfully assert that the complete disclosure of Kaneko et al. reveals that it is the capping layer (i.e., protective layer) that provides the benefits of “a liquid crystal display device which is improved in yield factor by preventing disconnection from occurring in a layered line portion or a lead terminal portion in a liquid crystal display device of an active matrix type such as a thin-film transistor (TFT) type,” and **NOT** the relative disposition of the black matrix with regard to the data, drain, and/or common line or common electrode. Thus, Applicants respectfully assert that the alleged motivation to modify Fujikawa et al., as set forth in the Final Office Action, is completely incorrect and a gross misinterpretation of the disclosure of Kaneko et al. Therefore, Applicants respectfully assert that the Final Office Action further fails to establish a *prima facie* case of obviousness with regard to Applicant’s claimed invention.

Third, for at least the reasons set forth above, the Final Office Action alleges that “Kaneko is evidence that ordinary workers in the field of liquid crystals would have found the reason, suggestion and motivation to specify a black matrix on the second transparent substrate,

the black matrix covering the thin film transistor, the protrusion of the common line, and portions of the gate line and the common line and a common electrode on the second transparent substrate to cover the black matrix for improving yield by preventing disconnection from occurring in a layered line portion or lead terminal portion of an active matrix liquid crystal display device (Column 1, Lines 5-12)” is completely unsupported by the full disclosure of Kaneko et al. Accordingly, since the Final Office Action’s alleged motivation is false and a complete distortion of the actual disclosure of Kaneko et al., then the conclusion presented by the Final Office Action that “[it] would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Fujikawa in view of Kaneko for improved yield by preventing disconnection from occurring in a layered line portion or lead terminal portion of an active matrix liquid crystal display device (Column 1, Lines 5-12)” is also false. Thus, Applicants respectfully assert that the Final Office Action further fails to establish a *prima facie* case of obviousness with regard to Applicant’s claimed invention.

With regard to Fujiwara, the Final Office Action relies upon Fujiwara to allegedly teach “a data line (101) with a protrusion and a gate line (Gn+1) with a protrusion.” In addition, the Final Office Action alleges that “[t]he length of the extension from the gate line is longer than the distance between the data line protrusion and gate line.” Thus, the Final Office Action concludes that “[i]t would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Fujikawa in view of Fujiwara for a high aperture ratio due to a reduction in size of the storage capacitor thus improving display brightness (Column 5, Lines 55-67).” Applicants respectfully traverse this portion of the rejection for at least the following reasons.

First, Applicants respectfully assert that the Final Office Action's alleged motivation for modifying Fujikawa et al. with the disclosure of Fujiwara is completely unsupported by the disclosure of Fujiwara. Applicants respectfully assert that the allegation that Fujiwara somehow teaches or suggests forming a data line with a protrusion and a gate line with a protrusion for "a high aperture ratio due to a reduction in size of the storage capacitor thus improving display brightness (Column 5, Lines 55-67)" is completely taken out of context with regard to the full disclosure of Fujiwara. Specifically, Fujiwara discloses, at col. 5, lines 55-67, that:

Furthermore, the storage capacitor employs a gate insulation film of the pixel transistor as an insulation layer. As a result, the gate insulation film has a smaller thickness as compared to a conventional structure employing an interlayer insulation film in the lower layer of the pixel electrode. Consequently, an area required for the storage capacitor C.sub.S can be made smaller than that required for the conventional storage capacitor C.sub.S. Accordingly, **an aperture ratio of the pixel can be made larger due to a reduction in size of the storage capacitor C.sub.S, thereby improving brightness of the liquid crystal display device** (emphasis added).

Accordingly, Applicants respectfully assert that Fujiwara actually discloses that the aperture ratio of the pixel can be increased due to the storage capacitor Cs having a reduced size. Thus, Applicants respectfully assert that Fujiwara fails to disclose *ANYTHING* with regard to forming a data line with a protrusion and a gate line with a protrusion for "a high aperture ratio due to a reduction in size of the storage capacitor thus improving display brightness (Column 5, Lines 55-67)," as alleged by the Final Office Action. Therefore, Applicants respectfully assert that the Final Office Action further fails to establish a *prima facie* case of obviousness with regard to Applicants' claimed invention.

For at least the above reasons, since the Final Office Action fails to meet the requirements for establishing a *prima facie* case of obviousness as to independent claims 13, 34, 43, and 51, claims 13, 34, 43, and 15 are not obvious.

With regard to the Final Office Action's allegation that "it may be presumed that the storage capacitance common line and gate line are of the same material (claim 14) for manufacturing convenience and may include an opaque material as a light shield (claim 15) as consistent with the goal of improving yield as taught by Kaneko et al.," Applicants respectfully traverse the rejection for at least the following reasons.

First, Applicants respectfully assert that the "presumption" made by the Final Office Action is incorrect. Specifically, Applicants respectfully assert that none of the prior art of record, especially Kaneko et al., for at least the reasons detailed above, teach or suggest anything with regard to "manufacturing convenience." Applicants respectfully request that the Examiner clarify the exact logical reasoning, along with fully supporting evidence, that the storage capacitance common line and gate line of whichever applied reference may be presumed to be "of the same material...for manufacturing convenience."

Second, if the Examiner is attempting to allege that "manufacturing convenience" is either *well known* or *common knowledge*, then Applicants respectfully disagree. Applicants respectfully assert that, as instructed in MPEP 2144.03A, "[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known," and, in part, "[i]t is never appropriate to rely solely on 'common knowledge' in the art without evidentiary support in the record, as the principle evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697." Accordingly, Applicants

respectfully submit that since none of the prior art of record teaches or suggests that storage capacitance common lines and gate lines made of the same material is well known and capable of instant and unquestionable demonstration as being well-known *for manufacturing convenience*, then it is not appropriate for the Examiner to take official notice or make the assertion that forming storage capacitance common lines and gate lines of the same material is well known.

Furthermore, as instructed by MPEP 2144.03C, “[i]f applicant adequately traverses the examiner’s assertion of official notice, the examiner must provide documentary evidence in the next Office Action if the rejection is maintained. See 37 CFR 1.104(c)(2). See also *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697.” Thus, Applicants respectfully submit that if the rejection is maintained, documentary evidence be provided in the next Office Action that it is well-known for forming storage capacitance common lines and gate lines of the same material.

Third, Applicants respectfully assert that the alleged “goal of improving yield as taught by Kaneko” is completely unsupported by Kaneko et al. Specifically, Applicants respectfully assert that Kaneko et al. is completely silent with regard to forming “the storage capacitance common line and gate line are of the same material...for manufacturing convenience and may include an opaque material as a light shield...as consistent with the goal of improving yield as taught by Kaneko.” Applicants respectfully request that the Examiner clarify the exact logical reasoning, along with fully supporting evidence, that Kaneko et al. explicitly teaches that “the storage capacitance common line and gate line are of the same material...for manufacturing convenience and may include an opaque material as a light shield...as consistent with the goal of improving yield.”

For at least the above reasons, since the Final Office Action fails to meet the requirements for establishing a *prima facie* case of obviousness as to claims 14 and 15, claims 14 and 15 are not obvious.

With regard to the Final Office Action's allegation that "it may be presumed that data lines and storage capacitor electrode are formed on the same material simultaneously for manufacturing convenience as taught by Kaneko," Applicants respectfully traverse the rejection for at least the following reasons.

First, Applicants respectfully assert that the "presumption" made by the Final Office Action is incorrect. Specifically, Applicants respectfully assert that none of the prior art of record, especially Kaneko et al., for at least the reasons detailed above, teach or suggest anything with regard to "manufacturing convenience." Applicants respectfully request that the Examiner clarify the exact logical reasoning, along with fully supporting evidence, that the data lines and storage capacitor electrode of whichever applied reference may be presumed to be "of the same material...for manufacturing convenience."

Second, if the Examiner is attempting to allege that "manufacturing convenience" is either *well known* or *common knowledge*, than Applicants respectfully disagree. Applicants respectfully assert that, as instructed in MPEP 2144.03A, "[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known," and, in part, "[i]t is never appropriate to rely solely on 'common knowledge' in the art without evidentiary support in the record, as the principle evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697." Accordingly, Applicants respectfully submit that since none of the prior art of record teaches or suggests that data lines

and storage capacitor electrodes are simultaneously made of the same material are well known and capable of instant and unquestionable demonstration as being well-known *for manufacturing convenience*, then it is not appropriate for the Examiner to take official notice or make the assertion that forming data lines and storage capacitor electrodes simultaneously of the same material is well known.

Furthermore, as instructed by MPEP 2144.03C, “[i]f applicant adequately traverses the examiner’s assertion of official notice, the examiner must provide documentary evidence in the next Office Action if the rejection is maintained. See 37 CFR 1.104(c)(2). See also *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697.” Thus, Applicants respectfully submit that if the rejection is maintained, documentary evidence be provided in the next Office Action that it is well-known for forming data lines and storage capacitor electrodes simultaneously of the same material.

Thus, Applicants respectfully assert that the alleged motivation of “as taught by Kaneko” is completely unsupported by Kaneko et al. Specifically, Applicants respectfully assert that Kaneko et al. is completely silent with regard to “data lines and storage capacitor electrode formed of the same material simultaneously for manufacturing convenience.” Applicants respectfully request that the Examiner clarify the exact logical reasoning, along with fully supporting evidence, that Kaneko et al. explicitly teaches that “data lines and storage capacitor electrode formed of the same material simultaneously for manufacturing convenience.”

For at least the above reasons, since the Final Office Action fails to meet the requirements for establishing a *prima facie* case of obviousness as to claim 16, claim 16 is not obvious.

With regard to the Final Office Action's instructions to "please refer to Figure 1A," Applicants can only surmise that the Examiner is referring to Hebiguchi for allegedly "teaching" the features recited by claims 20, 21, and 50. Applicants respectfully traverse this portion of the rejection on grounds that the Final Office Action has not established any proper motivation to modify the TN LCD device of Fujikawa et al. with the IPS LCD device of Hebiguchi et al., and thus, has further not established a *prima facie* case of obviousness.

With regard to the Final Office Action's allegation that "Applicant's recited steps of a method for fabricating a liquid crystal display device would have been rendered obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made in light of the device as disclosed and taught in and by the above cited references," Applicants respectfully traverse this portion of the rejection for at least the following reasons.

First, Applicants traverse each and every ground of rejection made in the Final Office Action with regard to the combination of features recited by claims 34-42 and 51-58. Specifically, Applicants respectfully traverse the apparent rejection of claims 34-42 and 51-58 for at least for the grounds presented above with regard to each of Fujikawa et al., Hebiguchi, Kaneko et al., and Fujiwara et al. Thus, Applicants respectfully assert that the Final Office Action further fails to establish a *prima facie* case of obviousness with regard to claims 34-42 and 51-58.

Claims 17-19 and 45-47 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujikawa et al. in view of Hebiguchi, Kaneko et al., and Kawamoto et al. (US 5,151,806). Applicants respectfully traverse these rejections for the following reasons.

With regard to the alleged combined teachings of Fujikawa et al., Hebiguchi, and Kaneko et al., Applicants respectfully assert that the Final Office Action has failed to establish a *prima*

facie case of obviousness with regard to at least independent claims 13, 34, 43, and 51.

Accordingly, Applicants respectfully assert that Kawamoto et al. fails to remedy the deficiencies of any of Fujikawa et al., Hebiguchi, and Kaneko et al. Thus, Applicants respectfully assert that the Final Office Action fails to establish a *prima facie* case of obviousness with regard to any of claims 17-19 and 45-47.

The Final Office Action acknowledges that “Fujikawa does not appear to explicitly specify... first and second capacitor electrodes simultaneously formed of the same material...” Accordingly, the Final Office Action relies upon Kawamoto et al. for allegedly disclosing “a liquid crystal display apparatus having...to prevent short-circuiting (ABS, entire patent).” In addition, the Final Office Action alleges that “Kawamoto is evidence that ordinary workers in the field of liquid crystals would have had the reason, suggestion, and motivation to include a second capacitor electrode overlapping a portion of a gate line and connected to the pixel electrode to prevent short-circuiting and for storage capacitance.” Thus, the Final Office Action concludes that “it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to include the structure of Kawamoto into the array substrate of Fujikawa to prevent short-circuiting and for storage capacitance.” Applicants respectfully traverse the rejection for at least the following reasons.

First, Applicants respectfully assert that the Final Office Action has failed to provide any motivation with which to form the first and second capacitor electrodes “simultaneously of the same material,” as required by claims 18 and 46. Accordingly, Applicants respectfully assert that the Final Office Action fails to establish a *prima facie* case of obviousness with regard to at least claims 18 and 46.

Second, Applicants respectfully assert that the Final Office Action has failed to identify any prior art reference of record that properly teaches forming first and second capacitor electrodes “simultaneously of the same material,” as required by claims 18 and 46. Accordingly, Applicants respectfully further assert that the Final Office Action fails to establish a *prima facie* case of obviousness with regard to at least claims 18 and 46.

For at least the above reasons, since the Final Office Action fails to meet the requirements for establishing a *prima facie* case of obviousness as to claims 18 and 46, claims 18 and 46 are not obvious.

Since the Final Office Action fails to meet the requirements for establishing a *prima facie* case of obviousness as to independent claims 13, 34, 43, and 51, claims 13, 34, 43, and 51 are not obvious. Furthermore, since claims 14-21, 35-42, 44-50, and 52-58 depend from claims 13, 34, 43, and 51, respectively, and incorporate all the features of claims 13, 34, 43, and 51, claims 14-21, 35-42, 44-50, and 52-58 are not obvious at least for the above reasons for which independent claims 13, 34, 43, and 51 are not obvious. Thus, Applicants respectfully request that the rejections of claims 13-21 and 34-58 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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